

# ENERGY EXPORTING OPPORTUNITIES TO CENTRAL AND EASTERN EUROPE

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At the start of the new century, Central and Eastern Europe are facing new energy challenges. These include:

- Securing affordable power supplies that are able to accommodate growing economies;
- The need for wider private sector participation in the energy sector;
- Greater integration of domestic energy industries into regional structures; and
- The development of environmentally friendly policies and strategies that comply with stringent international and European norms.

This dynamic environment is full of opportunity for a wide range of U.S. firms with expertise in areas such as plant management, environmental technology, logistics and engineering.

The energy sectors of individual countries in Central and Eastern Europe (CEE) are in varying stages of development and reform. Therefore, each country presents a unique set of opportunities for U.S. firms. Nevertheless, there are two crosscutting commercial policy objectives that are driving this

wide scale sectoral reform. First, as part of the continued economic transition begun over a decade ago, the region's national governments are pursuing policies of economic growth. Second, they are also pursuing a policy of economic integration with international and regional institutions such as the European Union (EU).

As part of the EU accession process, these aspiring CEE countries are required to adopt the *acquis communautaire*, or

the common body of law in the European Union. The principal objectives of energy reform as it relates to the EU accession process include the creation of a single energy market. In practice that means that accession candidate states must take steps to ensure transparency of prices to final consumers and to facilitate transit of resources from Central and Eastern Europe, Russia and the Newly Independent States to the markets of Western Europe.



The commercial opportunities in Central and Eastern Europe's energy sector fall into two major categories: First, the privatization of state-owned assets, second, the upgrade of existing facilities and infrastructure as well as the construction of new facilities.

The following country profiles describe the current opportunities in some of the region's individual markets.

### ALBANIA

Albania benefits from an abundant supply of hydropower. There are currently eight major hydroelectric facilities that account for 95 percent of the country's power generation. At present the hydro facilities produce about 3.6 billion kilowatt hours per year. This is significantly below the projected capacity of 16 billion kilowatt hours per year. The Albanian government is exploring ways to develop this unrealized potential.

However, the Albanian energy sector has many problems that it must overcome. Power supplies are restricted and unpredictable. Approximately 50

percent of all electricity is not paid, as a result of no price controls, poorly organized distribution and a public unwillingness to pay for substandard service. The European Bank for Reconstruction and Development (EBRD) and the World Bank are currently financing a number of initiatives to help improve Albania's power generating infrastructure.

### BOSNIA AND HERZEGOVINA

Bosnia and Herzegovina's total power generation capacity is 3,867 megawatts. There are 13 hydroelectric plants that generate 52 percent of the country's electricity. The remaining 48 percent is generated by four coal burning facilities.

The World Bank and other co-financiers, including the European Bank for Reconstruction and Development, the European Investment Bank and the United States Agency for International Development, are planning to invest \$231.1 million over the next three years in reconstruction of the electric power sector of Bosnia and Herzegovina

This multilateral effort is a continuation of the ongoing energy reconstruction program and ensures access to reliable, lower cost electricity, to be supplied with reduced environmental and safety risks and improved cost recovery by suppliers. It is expected to be completed within a three-year period from October 1, 2001, through September 30, 2004. The beneficiaries of this effort are the three electric power companies Elektroprivreda Bosnia and Herzegovina, Elektroprivreda of the Croatian Community of Herzeg-Bosnia and Elektroprivreda Republika Srpska and the Joint Power Coordination Center.

### BULGARIA

Bulgaria's power generating infrastructure is comprised of nuclear, conventional, thermo-electric and hydroelectric facilities. Nuclear power accounts for 40 percent of electricity. Conventional power generation is fueled mainly by domestically produced coal. Under a comprehensive reform plan, Bulgaria's energy sector is now undergoing reconstruction to be followed by privatization. The adoption of the Energy and Energy Efficiency Act in July 1999 accelerated power sector reform by providing the regulatory and legal framework for the market-based development of energy sector.

Under that plan, the state-owned electric company, NEK, has been divided into separate companies for generation, transmission and distribution prior to privatization. Electric power price reform is underway and will be accompanied by regulatory oversight. The State Agency for Energy and Energy Sources will regulate prices until December 31, 2001. After that period, the new State Commission on Energy Regulation will take over the monitoring of the market and the issuance of operating licenses for generation, transmission and distribution of electricity. Moreover, there will be a second round of World Bank loans for supply-side efficiency improvements.



Related energy legislation enacted with the Energy Act requires heat allocators and thermostats to be installed on radiators in residences. The legislation also allows for independent heat providing agents to be hired by heat and electricity providers to better measure heating and electricity use and collect charges from residential and business customers. Additionally, privatization of the district heating substations is being considered, in order to make it possible to effectively implement this new approach to bill collection.

## CROATIA

The Ministry of Economy is the lead government agency for developing and implementing Croatia's energy policy reform. The goal of the reform is to enable and regulate competition according to European Union (EU) directives and provides the basis for privatization of the Croatian Electric Company, the Croatian Oil and Gas Company and the Adriatic Pipeline. The privatization process is expected to begin sometime in 2002.

The liberalization of the electricity market, which is scheduled to begin in 2002, will start with the largest consumers (over 40 gwh per year). Major consumers will be allowed to negotiate directly with suppliers. There are about 15 such consumers in Croatia. Foreign companies will be permitted to act as suppliers, providing that they are registered and licensed for this business activity in Croatia. It is expected that within the next few years, the 40-gwh per year-limit will be gradually reduced as market competition develops and will ultimately disappear — allowing all consumers to benefit from a free market.

## CZECH REPUBLIC

The Czech Republic has focused on diversifying its energy resources. Reliance on coal has been declining in favor of natural gas and nuclear energy. A new pipeline connection to Germany

and a long-term agreement with Norway to supply natural gas greatly reduces the country's dependence on traditional energy suppliers in Russia and the Newly Independent States. It is expected that the government will now focus on the environmental aspects of energy production to make it compliant with EU regulations.

New energy legislation adopted in late 2000 outlines the framework for the privatization of the Czech energy sector. Under the current plan, full liberalization is not expected till 2007. However, large consumers will be able to start choosing suppliers in 2002.

## ESTONIA

Estonia has sufficient resources to meet its current energy needs. This includes abundant domestic fuel resources, infrastructure for natural gas and liquid fuel imports and a well-developed national power system for the generation, transmission and distribution of electricity. Active oil shale deposits amount to about 1,200 million tons and, at current levels of consumption, are forecasted to last a hundred years. Current production capacity of its oil shale mines exceeds Estonia's predicted domestic demand in the coming decades.

The long-term electricity consumption forecast shows that Estonia's domestic consumption will remain moderate in the near future with a maximum of 2 to 3 percent annual increase. Any expansion in the power market will be through increased export, for which Estonia possesses the technical capabilities. Powerful transmission lines linking Estonia with Russia and Latvia make possible both electricity export to and transit through, these regions. However, export to these countries has been limited due to low demand in Latvia and Russia. In addition to Russia and Latvia, Finland is among Estonia's potential electric power export markets due to the relatively low price of Estonian electricity.

## F.R. YUGOSLAVIA

F.R. Yugoslavia has a current installed energy capacity of 10,410 megawatts. Coal-fired plants produce about 70 percent of the country's electricity with the other 30 percent coming from hydropower. F.R. Yugoslavia has nearly 13 billion tons of exploitable lignite reserves and nearly 7,000 gigawatts of hydro potential. The country's primary infrastructure was largely neglected during the 1990s and existing plants are based on U.S. technology from the 1950s. However, if these resources are properly developed and managed, F.R. Yugoslavia could begin to export electricity again as early as 2002–2003.

Two state-run companies, Elektroprivreda of Serbia and Elektroprivreda of Montenegro carry out the majority of F.R. Yugoslavia's electricity generation and distribution. However, the government recently announced plans to privatize the power sector within the next two years. Current prices are kept low by the Ministry of Trade to subsidize all parts of the economy, but an agreement is in place to raise prices in order to cover increasing costs and bring a reasonable profit to the sector. Recently, the F.R. Yugoslav Investment/Trade Promotion Agencies have outlined nine future energy sector projects including the refurbishment of the Tesla Power Plant and a preliminary study of the hydropower potential of the Tara and Moraca rivers. The total value of the nine proposed projects is estimated to be over \$750 million. The complete list of proposed projects is available on the Central and Eastern Europe Business Information Center's Web site at [www.mac.doc.gov/eebic.ccebic.html](http://www.mac.doc.gov/eebic.ccebic.html).

## F.Y.R. MACEDONIA

At present, the state-owned F.Y.R. Macedonian electric company provides electricity services. A thermal plant in Bitola supplies 70 percent of the country's energy. Other power-generating facilities include two additional coal/oil



thermo-power facilities and 15 hydro-power installations.

With the goal of entering the European Union, the F.Y.R. Macedonian government has been working to restructure and liberalize the country's electricity market. Discussions are currently underway on how best to achieve this goal. Significant reform and privatization, however, is not expected until after 2002.

## HUNGARY

Hungary has a well-developed and largely privatized energy system. In the power sector, a former monopoly, the state-owned National Grid Company (MVM) is responsible for the export, import, wholesale, high voltage transmission and dispatching of electricity generated by independent power plants and the state-owned Paks Nuclear Power Plant. Six foreign-owned regional electric utilities buy power from MVM and carry out retail activities including billing.

In the oil and gas sector, the 25 percent state-owned Hungarian Oil and Gas

Company (MOL) has a monopoly for gas and oil exploration, transmission, stockpiling and wholesale trade. Hungary is a massive importer of oil and gas from Russia, while it is a net power exporter to surrounding markets. The country's major energy resources for power generation are nuclear and hydrocarbon fuels. Regional gas distribution companies have also been privatized to mainly European strategic investors.

The Hungarian Oil and Gas Co. (MOL), Hungary's largest company was privatized in several steps between 1994–1998 with the Hungarian State retains a 25 percent stake. In addition, the Hungarian government mandates retail gas prices. MOL controls about 35 percent of the fuel retail market and owns the majority of the pipeline and storage infrastructure in Hungary. As part of its regional expansion policy, in 2001, MOL bought a 36 percent share of the Slovak oil and gas company, Slovnaft, with an option to buy a majority stake at a later date.

In 2000, the Hungarian government decided to start liberalizing the power

and the gas markets in a step-by-step process as Hungary draws nearer to the EU. As a first step, in January 2002, the 15 biggest consumers of electricity will be able to buy power from generators directly through MVM as a transporter. Further steps of the envisaged 10-year liberalization process are currently under discussion.

## LITHUANIA

Lithuania's electricity sector falls under the jurisdiction of the Ministry of Economy. Lithuanian Energy operates all major generating, transmission and distribution assets with the exception of two combined heat and power plants in Vilnius and Kaunas. An energy law passed in May 2000 provides for the privatization of Lithuanian Energy. Reforms will include the unbundling of generation, transmission and distribution services.

## POLAND

During the last ten years, the electrical power sector in Poland has been gradually liberalized. The electrical power sector consists of three main systems. First, the power generators including system power plants, combined heat and power plants and local energy producers with a total installed capacity of 34,255 megawatts. Second, the high-voltage transmission system operated by Polish Power Grid Company (PPGC). Third, the distribution system consisting of 33 electric distribution utilities and new companies created according to the Energy Law.

The Energy Law of 1997 created the legal framework for liberalization of the power sector and creation of a competitive energy market. The key provisions of the 1997 law included a solid legal framework, defining the rights and duties of producers, distributors and users of energy and the establishment of an independent regulatory entity responsible for granting licenses, approving tariffs and ensuring competition within the energy sector. The law



also introduced third party access of enterprises to energy distribution grids, provided that third parties produce energy domestically and meet contractual and governmental obligations. Full liberalization of Polish electrical power market is expected by 2005.

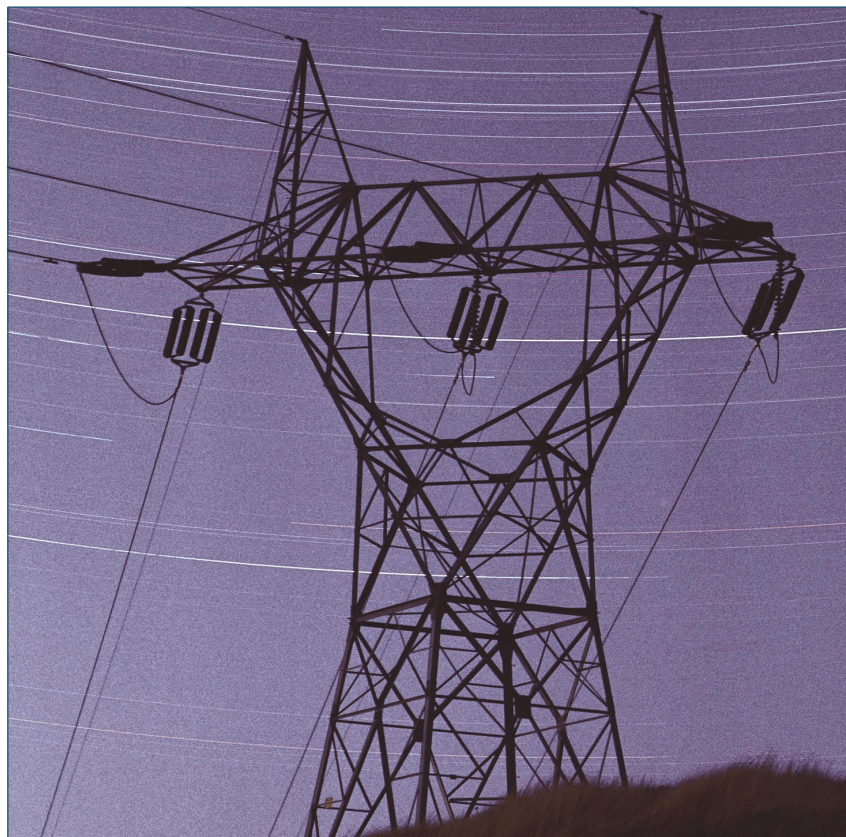
## ROMANIA

Romania's energy policy has been an important component of the reform measures passed during the past decade. Two main categories of enterprises function in the energy sector: the Regies Autonomes (RAs) for the production and supply of energy products and the Commercial Companies (CCs) that ensure support services and other activities. The Regies Autonomes are state holding companies operating in strategic sectors, such as electric power, oil, natural gas, lignite and coal. The CCs are joint stock enterprises established under the commercial law.

The World Bank, EBRD, the European Investment Bank (EIB) and USAID are financing a \$363.9 million power sector reform project aimed at meeting the demand for electricity by rehabilitating thermal generation capacity. This will be accomplished by financing the transfer of equipment, services and technical assistance. In addition the Romanian Ministry of Industry and Resources has published a list of projects for potential foreign investors including a \$500 million investment for the completion of the Cernavoda 2 nuclear reactor and \$35 million project for the development hydropower resources. A complete list of potential projects is available on the Central and Eastern Europe Business Information Center's Web site at [www.mac.doc.gov/eebic.ceeibic.html](http://www.mac.doc.gov/eebic.ceeibic.html).

## SLOVAKIA

Slovakia is a strategic transit country for Russian gas to the European Union. In 2000 the Slovak government began to institute market reform. Market liberalization is a key component of



Slovakia's accession negotiations with the European Union. As a result, the government has taken steps to establish an independent regulatory body and privatize the country's power company, gas company and gas pipeline.

## SLOVENIA

Slovenia's European Union aspirations have resulted in progress toward a more open economy in many sectors, including electricity. Slovenia is working on solving bilateral issues with Croatia including the Krsko nuclear power plant, which supplies energy for both countries. The agreement with Croatia over Krsko will reduce Slovenia's electricity supply significantly, forcing the government of Slovenia to further liberalize the electricity market to allow trading companies to import electricity. The government also consolidated hydroelectric, steam power plants and coalmines into the new holding Slovenske Elektrarne, of which the government owns 79.5 percent. These moves will present opportunities for

U.S. energy trading firms, but reduce competition in power generation in the medium term.

## GOVERNMENT ASSISTANCE FOR U.S. FIRMS

The U.S. Department of Commerce's has a number of resources for U.S. companies interested in Central and Eastern Europe's energy sector. The Central and Eastern Europe Business Information Center (CEEIBIC) is available to assist U.S. firms interested in pursuing opportunities in Central and Eastern Europe. To contact CEEIBIC, call (202) 482-2645; fax (202) 482-3898, Email [ceeibic@ita.doc.gov](mailto:ceeibic@ita.doc.gov), or at [www.mac.doc.gov/eebic.ceeibic.html](http://www.mac.doc.gov/eebic.ceeibic.html).

Firms may also wish to contact the Department of Commerce's Energy Division at (202) 482-1466 or fax (202) 482-0170 or the U.S. Commercial Service abroad. A complete list of Commercial Service offices in Central and Eastern Europe is available on [www.usatrade.gov](http://www.usatrade.gov).